

Claims:

1. Method for testing containers in which a pressure differential is created between a pressure inside the container and a pressure in its environment and from the behavior of one of the pressures, it is established whether the container satisfies predetermined test conditions, wherein, after one of the pressures reaches a predetermined test value or after it has reached a maximum value and said value has been stored, subsequently said pressure is compared for a predetermined time to at least one value of one of the two pressures, in which case at least this one pressure value appears as an output signal of a pressure sensor.
2. Method according to claim 1, wherein the test pressure value is stored electronically and subsequently the stored value is compared to at least one value of the output signal of a pressure sensor.
3. Method according to claim 1, wherein the electrical output signal of the sensor is compared to one or more predetermined values, e.g., on a computer into which the sensor output is entered.
4. Method, preferably according to at least one of the claims, such as claim 1, wherein a value of the sensor output signal is stored as a pressure value.
5. Method, preferably according to at least one of the claims, such as claim 1, wherein the pressure in the interior of

the container is increased or decreased and a value of the pressure of the interior of the container is measured.

6. Method, preferably according to at least one of the claims, such as claim 1, wherein the pressure in the interior of the container is increased or decreased and a value of the pressure of the environment of the container is measured.

7. Method, preferably according to at least one of the claims, such as claim 1, wherein the pressure in the environment of the container is increased or decreased and a value of the pressure of the interior of the container is measured.

8. Method, preferably according to at least one of the claims, such as claim 1, wherein the pressure in the environment of the container is increased or decreased and a value of the pressure of the environment of the container is measured.

9. Method, preferably according to at least one of the claims, such as one of claims 2-8, wherein the storage is accomplished by means of an analog/digital converter that is enabled at a predetermined time to perform conversion, preferably with a digital/analog converter placed behind it.

10. Method, preferably according to at least one of the claims, such as one of claims 1-9, wherein behind the pressure sensor is an amplifier element whose output signal is used, before the comparison is made, as a null-balance signal.

11. Use of the method, preferably according to at least one of the claims, such as one of claims 1-10, to test the gas tightness of the containers.

12. Use of the method, preferably according to at least one of the claims, such as one of claims 1-10, to test the volume of the container.

13. Test arrangement for containers with a pressure or suction source (9), which can be effectively connected to a container (1) to be tested with respect to its interior and exterior pressure, with at least one pressure sensor (11) and a pressure storage arrangement (13, 21, 17), wherein the pressure sensor is a converter that converts an input-side pressure value into an output-side electrical signal and the output of the sensor, on the one hand, and the output of an electronic pressure-value storage arrangement, on the other, are fed to a comparator unit (15, 23).

14. Arrangement, preferably according to at least one of the claims, such as claim 13, wherein, to test for leaks, the output of the sensor is additionally fed to the input of the electronic pressure-value storage arrangement, and to test volume, the electronic pressure-value storage arrangement comprises a storage unit that can be set externally.

15. Arrangement, preferably according to at least one of the claims, such as one of claims 13 or 14, wherein a container connection (19), which can be sealed to a container opening (1), is equipped with a sensor input (11) and source connection (9).

16. Arrangement, preferably according to at least one of the claims, such as one of claims 13-15, wherein a container connection (19) is equipped with a sensor input (11) which can be

sealed to a container opening (1) and a sealable chamber (3) to receive container (1), into which source (9) empties.

17. Arrangement, preferably according to at least one of the claims, such as one of claims 13 or 14, wherein a container connection (19) is equipped with source connection (9) that can be sealed to a container opening (1) and a sealable chamber (3) to receive container (1) at or in which sensor input (11) is provided.

18. Arrangement, preferably according to at least one of the claims, such as one of claims 13 or 14, wherein a sealable chamber (3) to receive container (1) is provided or in which both sensor input (11) and source connection (9) are provided.

19. Arrangement, preferably according to at least one of the claims, such as one of claims 13-18, wherein the pressure-value storage arrangement is an analog/digital converter, preferably a pair of analog/digital//digital/analog converters connected one directly behind the other.

20. Arrangement, preferably according to at least one of the claims, such as one of claims 13-19, wherein an amplifier is placed behind the sensor output; the output signal of said amplifier can be stored in a controlled manner and, once stored, acts on the input signal of the amplifier as a null-balance signal.

21. Use of the arrangement according to one of claims 13-20 to test for leaks in containers or to check their volumes.